USCMS Engineer Status Report for August 2003

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September 15, 2003

1 Work Performed This Month

Report for July and August:

Vacation last week in July first week of August.

- prepare Geant 4 Tutorial web page http://conferences.fnal.gov/g4tutorial/

- collect the LHC2003 contributions, create webpage and first round editing. all the proceedings can be found on http://conferences.fnal.gov/lhc2003/

- test some cmsim, cmkin, ORCA versions installed at fermilab. Documentation to be put up on the web for CMS UAF users.

- install comphep 4.20 and 4.21 matrix element monte carlo generator. Write interface to pythia to use pythia for hadronization of parton level comphep output. Process Dan Green cmphep data samples with pythia.

- evaluation of 64 bit opteron based system provided by ACE computers. Benchmarks were done with 32 Bit and 64 Bit operating system. The results can be found on the following web page: http://www.uscms.org/scpages/general/users/farm/benchr With a 32 bit operating system the performance was good and compared to 2.6 GHz intel xeon. With a 64 Bit operating system c++ applications (ROOT) and FORTRAN applications performed 34% better in 64Bit mode than they did with 32 bit mode. This is very similar to the results that a german group at the university of Karlruhe obtained. It is also very similar to results found in the literature which report a 25 - 40 % difference between 32 and 64 Bit mode. Overall the opteron seems to be an option right now since all current software (32 Bit) runs fine and it would allow a smooth transition to 64 Bit mode.

- setting up meetings with helpdesk so that problem requests concerning cms software and the UAF now go through the helpdesk system instead of directly to me or Natalia.

Usual stuff: - desktop support. setting up various desktops. - maintenance of UAF. - user support. - register and set up new users.